

REMARKS

The above amendments are made in response to the outstanding Non-final Office Action dated October 16, 2008. The Examiner's reconsideration is respectfully requested in view of the above amendments and the following remarks.

Claims 1, 7, 9-12, 16 and 20 are currently amended. Claims 2, 5, 6, 8 and 21 are cancelled without prejudice or disclaimer. Claims 3, 4, 13-15 and 17-19 are original. Upon entry of the amendments, claims 1, 3, 4, 7 and 9-20 will be active.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-17, 20 and 21 stand rejected under 35 U.S.C. § 103(a) as being anticipated by Ahn, et al. (WO 2004/058839; hereinafter, "Ahn") in view of Miyatake, et al. (U.S. Patent No. 5,804,655; hereinafter, "Miyatake").

Claims 18 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ahn and Miyatake as applied to claim 16 above, and further in view of Hamilton, et al. (U.S. Patent No. 6,730,734; hereinafter, "Hamilton") and Goldman, et al. (U.S. Patent No. 4,278,576; hereinafter, "Goldman").

Claims 1-17, 20 and 21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Fuji, et al. (U.S. Patent No. 5,298,559; hereinafter, "Fuji") and Miyatake.

Claims 18 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Fuji and Miyatake as applied to claim 16 above, and further in view of Hamilton and Goldman.

In order for an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996). See MPEP 2143.

Establishing a *prima facie* case of obviousness requires that all elements of the invention be disclosed in the prior art. *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970). Further, even assuming that all elements of an invention are disclosed in the prior art, an Examiner cannot establish obviousness by locating references that describe various aspects of a patent applicant's invention without also providing evidence of the motivating force which would have impelled one skilled in the art to do what the patent applicant has done. *Ex parte Levengood*, 28 U.S.P.Q. 1300 (Bd. Pat. App. Int. 1993). The references, when viewed by themselves and not in retrospect, must suggest the invention. *In re Skill*, 187 U.S.P.Q. 481 (C.C.P.A. 1975).

Ahn describes an acrylic impact modifier have a multilayered structure (abstract). As the office notes on page 4 of the office action, Ahn does not teach or suggest the acryl-silicone hybrid rubber core in the claimed acryl-silicone hybrid impact modifier.

The office relies on Miyatake to make up for the deficiencies of Ahn. Miyatake describes silicone-modified acrylic rubber particles. Miyatake contains acrylic rubber particles that require monomer A-1 (99.9 to 65% by weight) and monomer A-3 (0.1 to 10% by weight). Monomer A-3 is a monomer having a polymerizable unsaturated bond and a reactive silyl group (see column 2, lines 25-49 and column 5, lines 10-30). Further, applicants note that monomer A-3 is required because if it is less than 0.1% then impact resistance is low (column 7, lines 39-42). Accordingly, good impact resistance can not be achieved without monomer A-3.

As the office will note, claims 1 and 16 have been amended to include an acryl-silicone hydrid rubber core containing an acrylic rubber core where the acrylic rubber core consists of an alkyl acrylate and a cross-linking monomer. Applicants note that the cross-linking monomer is a monomer that contains 2 or more unsaturated bonds. In addition, applicants note that the term "consist of" excludes any element, step or ingredient not specified in the claim. Accordingly, claims 1 and 16 exclude the presence of a monomer like monomer A-3 required in Miyatake.

Accordingly, the combination of Ahn and Miyatake does not teach or suggest all the limitations of the claimed method, and therefore, applicants respectfully request the office withdraw the rejections of claims 1-17, 20 and 21 under 35 U.S.C. §103(a) over these references.

In addition, applicants note that Miyatake discloses, "When the proportion of the monomer (A-3) is less than 0.1%, a grafting amount of the silicone rubber precursor (B) in the obtained acrylic rubber particles (A) is low, which is a cause for lowering of impact resistance" (col. 7, lines 39-42). This means that if the A-3 component is not used, then the prepared

silicone-modified acrylic rubber particle is not suitable to an impact modifier for thermoplastic resins. In case that the hybrid rubber particle of Miyatake is used as an impact modifier for vinyl chloride resin (10 parts by weight of the hybrid rubber being used based on 100 parts by weight of vinyl chloride resin), Table 7 (Col. 20) shows that its Izod impact strengths at 23 °C are respectively, 140 kg · cm/cm (immediately after molding), and 96 kg · cm/cm (after 300 hours exposing), and Table 11 (col. 22) shows that the strength is 108-121 kg · cm/cm (immediately after molding).

In contrast, Example 5 in the Specification of the instant application exemplifies compositions comprising 6 parts by weight of an impact modifier according to the present invention and 100 parts by weight of PVC. Table 1 shows that its Izod impact strengths at 23 °C are respectively, 125-146 kg · cm/cm (immediately after molding), and 67-96 kg · cm/cm (after 300 hours exposing). These values of the impact properties according to the Examples of the present invention are equivalent to those of Miyatake although the Examples according to the present invention comprise the smaller amounts of the impact modifiers. These results are not expected at all, because Miyatake expects that the impact strength prominently decreases when the component (A-3) is not used for preparing the silicone-modified acrylic rubber, but actually the impact strength of the impact modifier according to the present invention does not decrease at all. Applicants submit this data showing unexpected results rebuts any *prima facie* case of obviousness. Accordingly applicants request that the rejections under 35 U.S.C. § 103(a) be withdrawn (see MPEP § 2145 (VII)).

Finally, applicants submit that, based on the remarks above regarding Miyatake, claims 1-17, 20 and 21 would not have been obvious over the combination of Fuji and Miyatake. Similarly, applicants submit that claims 18 and 19 would not have been obvious over the combination of Fuji, Miyatake, Hamilton and Goldman. Accordingly applicants respectfully request that the office withdraw the rejection of these claims under 35 U.S.C. § 103(a) over these references.

Conclusion

In light of the remarks above, applicants submit the application is in condition for allowance. Favorable reconsideration is respectfully requested.

If there are any charges due with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' attorneys.

The Examiner is invited to contact Applicant's Attorneys at the below-listed telephone number with any questions or comments regarding this Response or otherwise concerning the present application.

Respectfully submitted,

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